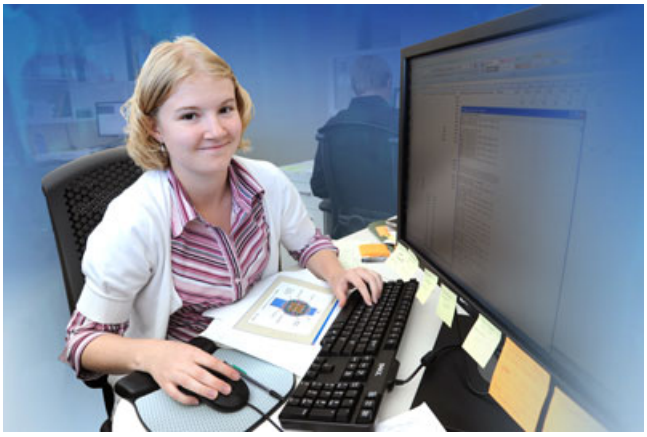


University of Wisconsin-Madison nuclear engineering student Amanda Lang recently won a $3,000 scholarship from INL's Center for Advanced Energy Studies (CAES). Nine other undergraduate interns also won CAES scholarships.

INL intern wins $3,000 scholarship from Center for Advanced Energy Studies

By Brett Stone, *INL Communications & Governmental Affairs intern*

It may not be news for most people that advanced research goes on at nuclear laboratories such as Idaho National Laboratory. But many would probably be surprised to learn that one of the people conducting some of INL's cutting-edge research just finished her sophomore year at college.

DOE Idaho Operations Office deputy manager for Nuclear Energy Ray Furstenau (middle) and CAES director Harold Blackman announced Lang's scholarship last month during INL's annual intern poster session.

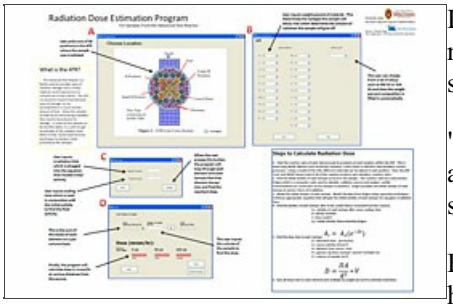
Amanda Lang, a nuclear engineering student from University of Wisconsin-Madison, was recently awarded a $3,000 scholarship by INL's Center for Advanced Energy Studies (CAES). She was one of 10 students awarded a scholarship based on their INL summer internship work and their career plans for addressing the world's energy challenges. Nine other students received scholarships for $1,000 each. Their summer projects varied widely, from technical writing to computer engineering and environmental science.

Lang earned her scholarship for research and development she performed while working as an intern at INL's Advanced Test Reactor National Scientific User Facility (ATR NSUF) this summer. She was chosen from a highly competitive pool of roughly 260 interns working at the lab.

"I was very excited," said Lang shortly after hearing the announcement that she had won. "It's good to know that my project was valued and it was important to INL."

In her first internship experience with INL this year, Lang spent her summer working on developing a special computer code. The code takes factors like a sample's position in the ATR, the time that the sample has been irradiated, how long it has been out of the ATR, and the type of material to produce an accurate estimate of the radiation dose someone who handles the material would receive.

"Amanda's program will be used by researchers to estimate the dose from material samples so they can determine if these materials can be handled outside of a hot cell or require handling in a shielded facility," explained Lang's mentor, Mitch Meyer. He said Lang was "a joy to work with," and that "she takes the initiative to find solutions to problems."



Lang developed a computer code that estimates how much radiation dose someone could receive handling material irradiated in INL's Advanced Test Reactor.

Lang hasn't quite decided exactly what her career will be — she's debating between pursuing nuclear power plant engineering and researching nuclear applications in the medical field. But she says the scholarship money will be useful in helping her along her way.

"I'll use it toward tuition and books, so it will help me focus more," Lang said. "I have a research job at the lab at UW Madison, so I can focus more on that instead of getting another part-time job or something, which will give me more experience in the nuclear field."

Even though Lang is still an undergraduate, her job in the ion beam lab at her university has her helping graduate students prepare samples. That's just another example of how she doesn't let perceived barriers get in the way of achieving her goals. Part of her internship project required her to learn how to use two simulation programs. Then she had to learn, mostly on her own, how to write a program using Visual Basic software to perform the necessary calculations.

"I learned a lot because I had never used the simulation programs," said Lang. She said she persevered through "some points where it was frustrating" with help from fellow interns, her mentor, some books and time.

"I could just sort of chug through it and eventually I got it to do what I wanted," she said.

Lang is looking forward to starting classes back in Wisconsin soon.

"This sort of gave me the side of something I didn't know about," she said. "Hopefully, I'll be able to use this to guide what I'm going to study in the next couple of years and eventually where I'm going to work."

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